

Dusit Phrom-on 2006: Correlation of Anaerobic Power, Anaerobic Capacity, Lactic Acids and Heart Rate between the Wingate Anaerobic Test and the Running-Based Anaerobic Sprint Test in Soccer Player. Master of Science (Sports Science), Major Field: Sports Science, Interdisciplinary Graduate Program.
Thesis Advisor: Associate Professor Supitr Samahito, Ph.D. 91 pages.
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The purpose of this study was to examine the correlation of anaerobic capacity, anaerobic power, lactic acids and heart rate in soccer players by using the Wingate Anaerobic Test and the Running-Based Anaerobic Sprint Test. Population were forty male soccer players in soccer club at Kasetsart University who were 19-22 years of age. Twenty soccer players were randomly by simple random sampling method. Wingate Anaerobic Test and the Running-Based Anaerobic Sprint Test were then used as the tools for this research, taking twice in each test and also subjects were rested at least two days before taking another session. Data from these testing was statistically analyzed for examining the correlation between the two methods by mean, standard deviation, and Pearson Product Moment Correlation Coefficient, as well as testing the significant difference at the level of .01.

The findings revealed that the anaerobic power, anaerobic capacity, lactic acids and heart rate after exercise by using the Wingate Anaerobic Test and the Running-Based Anaerobic Sprint Test were significantly different at the level of .01. Meanwhile the correlation coefficient of anaerobic power, anaerobic capacity, lactic acids, and heart rate after exercise are .629, .803, .793 and .935 respectively.

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Thesis Advisor's signature

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